

COMPUTER SCIENCE

REVISION LIST – YEAR 11 MOCK EXAMS



For your Year 11 mock exams, you will be completing the following exams in our subject:

Paper	Time	Marks Available
Paper 2 – Computational Thinking	1 hour 30 minutes	80

To support you in preparing for these exams, you should revise the following aspects of the course:

Topic/ Theme	Started Revision
Computational Thinking ○ Abstraction - removing unnecessary details from a problem ○ Decomposition - breaking a problem into smaller parts ○ Algorithmic thinking - planning logical step-by-step solutions	
Algorithms ○ Understand and write pseudocode ○ Interpret and complete flowcharts ○ Use trace tables to follow algorithms ○ Identify and correct logic and syntax errors	
Searching & Sorting ○ Linear Search ○ Binary Search (requires sorted data) ○ Bubble Sort (all passes) ○ Merge Sort ○ Insertion Sort	
Programming fundamentals ○ Variables and constants ○ Assignment statements ○ Input and output ○ Data types: Integer, Real / Float, Boolean, Character, String ○ Casting / type conversion	
Programming Constructs ○ Sequence Instructions run in order ○ Selection IF statements, IF...ELSE statements, Nested IF statements ○ Iteration FOR loops, WHILE loops, REPEAT/UNTIL loops	
Functions & Procedures ○ Know the difference between functions and procedures ○ Parameters and arguments ○ Return values ○ Calling subprograms	

Maximising Our Potential

Confidence

Respect

Aspiration

Resilience

Kindness

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Arrays - One-dimensional arrays - Using indexes - Traversing arrays with loops - Counting, searching and processing data in arrays	
String Handling - Concatenation - Substrings/slicing - Length of strings - Case conversion (upper/lowercase)	
File Handling - Open a file - Read from a file - Write to a file - Close a file	
SQL - SELECT - FROM - WHERE	
Boolean Logic - AND, OR and NOT gates - Truth tables - Logic circuits - Determining circuit outputs	
Program Robustness - Testing: Normal data, Boundary data, Invalid data - Validation: Range check, Length check, Type check, Presence check, Format check - Authentication: Usernames and passwords, PINs, Biometrics	
Programming Languages & IDEs High-level languages, Low-level languages Compilers, Interpreters IDE features: Code editor, Error diagnostics, Translator, Run-time environment	